Grant Writing: A 12-Step Program

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Step 1: Identify a mentor(s)

- with a track record
- with a commitment to you & your career goals
- need not be your research advisor
- more than one is OK!

Step 2: Plan ahead

- Grant writing takes time...probably more time than you expect
- Bounce ideas off mentors & colleagues
- Talk to program staff
- Decide on your target deadline
- Get organized

Step 3: Don’t be creative…make the reviewers’ job easier

- Use the correct forms (PHS398 or PHS416)
- Follow the instructions
- Follow the recommended format
- Fill the forms out completely
- Don’t guess—ask questions

Step 4: Be creative but pragmatic...

- Formulate your Specific Aims
- Seek feedback
  - Focused?
  - Feasible?
  - Realistic (not overly ambitious)?
  - Good training vehicle for you?
- Did I say “Focus”? Be certain every aim and experiment is clearly related to the overall goal of your proposal.

Step 5: It's about you AND your idea

- The candidate
- Research plan
- Training/career development plan
- The sponsor
- The institutional environment

Step 6: Consider the review criteria

- The candidate: your background and potential to develop into an independent researcher
- Research plan: its scientific merit, significance, feasibility & relationship to your career plans
- Training/career development plan: its components & how well it fits the research plan
- The sponsor: his/her track record as both a researcher and mentor
- Institutional environment & commitment to the training/career development of the candidate

Step 7: Demonstrate mastery of your research topic

- Explicitly state your rationale.
- Cite the appropriate literature thoroughly.
- Include preliminary data.
- Identify problematic aspects of hypotheses or techniques; indicate back-up strategies.
- Provide expected/alternative outcomes and interpretations.
- Don’t forget your training/career development plan!

Step 8: Help the reviewers do their jobs

- Use a “reviewer-friendly” format.
- Present the proposal in “bite-sized bits.” Use section headings, bold type, etc. to enhance readability.
- Be concise!
- Walk the reader through the experiments. Don’t just present a list of methods.
- Include an explicit timeline.

Step 9: Don’t assume…don’t be sloppy

- Don’t assume the reviewers will *know what you mean*…be clear.
- Watch grammar. Avoid jargon.
- Make sure you’ve completed all required sections in the indicated order.
- Get in-house critiques well in advance of the deadline.
- Spell check and
- Read your application carefully before submitting.

Step 10: Common problems to avoid

- Lack of new or original ideas
- Absence of an acceptable scientific rationale
- Lack of knowledge of relevant, published work
- Overly ambitious research plan
- Superficial or unfocused research plan
- Questionable reasoning in experimental approach
- Lack of experience with an essential methodology
- Insufficient experimental detail

Step 11: A strong research proposal...

- Has well-defined Specific Aims.
- Proposes novel, interesting & focused experiments.
- Is likely to advance knowledge.
- Provides supporting Preliminary Data.
- Has an appropriately detailed Experimental Design.
- Documents appropriate scientific expertise.
- Has a reasonable & justified budget.
- Training applications need other strengths too.

Step 12: If you need to revise

- Discuss the summary statement; get help in revising.
- Be polite.
- Be responsive to all of the reviewers' criticisms.
- Put all ego aside. If in doubt, do it their way.

Step 13: Last, but hardly least…

- Celebrate your efforts.
- Don’t forget to call us.
- Have *fun* doing science.